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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,054	08/06/2001	Susumu Nikawa	FUJA 18.905	9863

26304 7590 09/23/2004

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EXAMINER
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ELAHEE, MD S

ART UNIT	PAPER NUMBER
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2645

DATE MAILED: 09/23/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/923,054

Applicant(s)

NIKAWA ET AL.

Examiner

Md S Elahee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 08.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) and in view of Yamawaki (U.S. Patent No. 5,159,543).

Regarding claim 1, Takano teaches a DC/DC converter for supplying power to the display unit (fig.2; col.3, lines 23-26).

Takano further teaches a frequency switching unit for selectively switching and supplying one of a plurality of switching clock frequencies (fig.2; col.3, lines 52-59)

However, Takano does not specifically teach supplying one of a plurality of switching clock frequencies to the DC/DC converter. Yamawaki teaches supplying one of a plurality of switching clock frequencies to the DC/DC converter (col.2, lines 20-31). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano to allow supplying one of a plurality of switching clock frequencies to the DC/DC converter as taught by Yamawaki. The motivation for the modification is to have doing so in order to control the DC/DC converter so that there will be reduced power consumption in case of no communication.

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Takano further teaches a CPU (i.e., display mode detecting unit) for detecting that the display unit has been switched to a display halted (i.e., predetermined low-power consumption) mode, determining one of the plurality of switching clock frequencies according to power consumption reduced in the display halted mode based on this detection, and instructing the clock frequency generating circuit (i.e., frequency switching unit) to execute this selective switching (col.3, lines 52-59, col.4, lines 23-27, 44-47, 55-60). (Note; when the display is halted, clock frequency is set to the lowest speed (see col.4, lines 55-57))

Regarding claim 2, Takano teaches the display mode detecting unit determines lower one of the plurality of switching clock frequencies, when the display unit has been switched to a lower-power consumption mode (col.4, lines 23-27, 44-47, 55-60).

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) and in view of Irube et al. (U.S. Patent No. 6,377,818).

Regarding claims 3 and 4 are rejected for the same reasons as discussed above with respect to claim 1. Furthermore, Takano teaches monitoring the display unit to see whether the display unit is in a halted mode or not (fig.2; col.5, lines 54-59, col.6, lines 12-20).

However, Takano does not specifically teach display color number limiting mode. Irube teaches display color number limiting mode (col.15, lines 38-51). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano to allow display color number limiting mode as taught by Irube. The motivation for the modification is to have doing so in order to determine a movement instruction of the display region in the vertical direction.

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Takano further teaches switching the frequency to the determined switching clock frequency, and operating the DC/DC converter at this frequency (col.3, lines 52-59, col.4, lines 23-27, 44-47, 55-60).

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) and in view of Yamawaki (U.S. Patent No. 5,159,543) and further in view of Irube et al. (U.S. Patent No. 6,377,818).

Regarding claims 5 and 6, Takano teaches that the display unit (col.4, lines 23-27).

However, Takano in view of Yamawaki does not specifically teach an LCD display unit. Irube teaches an LCD display unit (col.14, lines 50-55). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano in view of Yamawaki to allow an LCD display unit as taught by Irube. The motivation for the modification is to have doing so in order to display a video sensed by the camera unit on the video LCD.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nonami (U.S. Patent No. 5,054,052) teach Mobile telephone device with low power consumption, He et al. (U.S. Patent No. 6,323,849) teach Display module with reduced power consumption, Cannon et al. (U.S. Patent No. 6,501,969) teach Extended power savings for electronic devices and Radar (U.S. Patent No. 5,867,140) teach Display system and circuit therefor.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.E .

MD SHAFIUL ALAM ELAHEE

September 13, 2004

FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to be 'Fan Tsang', written in a cursive style.